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BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of:

Amendment of the Commission's Rules
to Establish Rules and Policies Pertaining
to a Mobile Satellite Service in the
1610-1626.5/2483.5-2500 MHz Frequency
Bands

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CC Docket No. 92-166

To: The Commission

REPLY COMMENTS OF ITFS PARTIES

Arizona Board of Regents for Benefit of the University of Arizona, Austin Community College, Board of Trustees of the University of Cincinnati, California State University, Greater Dayton Public Television, Inc., KCTS Television, Public Broadcasting Service, South Carolina Educational Television Commission, St. Louis Regional Educational and Public Television Commission, State of Wisconsin - Educational Communications Board, University of Maine System, University System of the Ana G. Mendez Educational Foundation and WITF, Inc. (collectively "ITFS Parties") submit these reply comments with respect to the Commission's Notice of Proposed Rule Making in CC Docket No. 92-166, relating to the establishment of rules and policies governing a Mobile Satellite Service ("MSS") in the 1610-1626.5/2483.5-2500 MHz frequency bands. The ITFS Parties limit their reply comments to the ITFS/MSS interference issue raised by the NPRM and addressed in comments filed by several other parties.

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The ITFS Parties

The ITFS Parties together are licensees of 40 ITFS stations operating on the A channel group, including Channel A1 (2500-2506 MHz) which is immediately adjacent to the 2483.5-2500 MHz band proposed for MSS downlinks. The Arizona Board of Regents for Benefit of the University of Arizona leases capacity on ITFS Station WHR-964 at Tucson, which it uses for educational purposes and on which it subleases excess capacity to a wireless cable operator.^{1/} Austin Community College is licensee of Station WLX-403 at Austin, Texas. The Board of Trustees of the University of Cincinnati is licensee of Stations KHX-47 (Channels A1 and A2) and WHR-662 (Channels A3 and A4) at Cincinnati, Ohio. The California State University is licensee of eight ITFS stations on the A channel group in California. CSU-Northridge operates Stations WHG-227 at Northridge and WLX-974 at Ridgecrest. CSU-Stanislaus operates Station WGV-750 at Stanislaus. CSU-Fresno operates Station WHR-494 at Bear Mountain. CSU-Sacramento operates Station WHG-370 at Sacramento. CSU-Bakersfield operates Station WHR-797 at Bakersfield. CSU-Chico operates Stations WGR-860 at Quincy and WBS-390 at Mt. Shasta.

Greater Dayton Public Television, Inc. is licensee of Station WHR-537 at Dayton, Ohio. KCTS Television is licensee of ITFS Station WHR-528 at Seattle, Washington. The Public Broadcasting Service is licensee of Station WHR-964 at Tucson,

^{1/} The University has applied for FCC consent to the assignment of the license of Station WHR-964 from the Public Broadcasting Service to the University (File No. BAPLIF-930816DG).

Arizona. South Carolina Educational Television Commission ("SCETV"), the nation's single largest ITFS operator, has seven A group stations -- WBX-216 at Rock Hill, WHN-704 at Blackville, WHF-220 at Charleston, WHQ-258 at Columbia, WGR-849 at Georgetown, WHR-481 at Greenville and KGF-20 at Lake City, all in South Carolina.^{2/}

St. Louis Regional Educational and Public Television Commission is licensee of Station WHG-332 at St. Louis, Missouri. The State of Wisconsin - Educational Communications Board is licensee of seven A group ITFS stations -- WHR-766 at Summers, WHR-591 at Chilton, WHR-580 at Wausau, WHR-576 at La Crosse, WHR-648 at Eau Claire, WLX-284 and WLX-285 (both ITFS STLs) at Beloit/Janesville, all in Wisconsin.

The University of Maine System also is licensee of seven A group ITFS stations. It operates Stations WHR-996 at Fort Kent, WHR-984 at Greenwood, WHR-968 at Litchfield, WLX-215 at Blue Hill, WHR-999 at Bridgewater, WLX-216 at Machias and WLX-203 at Greenville, all in Maine.

The University System of the Ana G. Mendez Educational Foundation is licensee of Station WLX-661 at Jajuya, Puerto Rico.^{3/} WITF, Inc. is licensee of Station WHR-650 at Harrisburg, Pennsylvania.

^{2/} SCETV contemplates that, as its statewide system is fully developed, it may need additional facilities on the A channel group.

^{3/} The Foundation is also an applicant for Channels A1-A4 at Cayey, Puerto Rico (File No. BPLIF-930317DJ).

Clearly, the ITFS Parties are substantially affected by the NPRM and urge the Commission to consider their interests and those of the people they serve in adopting rules and policies for the MSS.

The NPRM

The NPRM, at p. 63-65, notes that there is serious potential for out-of-band emissions from ITFS stations operating on Channel A1 causing interference to MSS downlinks at 2483.5-2500 MHz operating within several kilometers of ITFS transmitters. The solution suggested by the "MSS above 1 Ghz Negotiated Rule Making Committee" (the "Committee"), which did not include any ITFS representative, contemplates limiting out-of-band emissions to -90 dB below the carrier, 30 dB lower than required by current FCC rules. The Committee estimates the cost of such additional attenuation at up to \$30,000 per station. These costs could increase as ITFS stations are converted from analog to digital technology.

Comments of Wireless Cable Association International

One party, the Wireless Cable Association International, Inc. ("WCAI"), provided extensive comments in this proceeding from the prospective of users of Channel A1. It offers the following perspectives.

First, the Committee itself expressed substantial doubt whether MSS downlink transmissions can be protected from interference of potentially greater impact from Industrial, Scientific and Medical ("ISM") applications in the 2400-2500 MHz band, except perhaps in sparsely populated areas. WCAI suggests that the Commission must

be convinced that the 2483.5-2500 MHz band can actually be used by MSS before giving serious consideration to imposing additional restrictions on out-of-band emissions by ITFS stations.

WCAI also notes that, because of disparate technologies that may be employed by MSS facilities, it is difficult to determine the degree of interference that might be caused by ITFS stations to MSS systems. WCAI urges that MSS proponents provide additional information to support their assertion that greater than -60 dB attenuation is required. This information is particularly important because the only MSS party filing detailed comments on this issue, Loral/Qual Comm Partnership, L.P., suggests that additional restrictions on out-of-band emissions by ITFS parties are unnecessary.

WCAI shows that the MSS proponents have also not considered the effects of low cost broadband repeaters employed by ITFS licensees to relay signals to areas that are otherwise unserviceable due to terrain blockage or other obstructions. Due to the nature of these repeater facilities, it is unclear how ITFS operators could eliminate out-of-band emissions without increasing the costs of these facilities to impractical levels.

WCAI goes on to point out that use of the 2483.5-2500 MHz band is not essential to the future of MSS. The MSS system proposed by Motorola, for example, does not require operation in the 2483.5-2500 MHz band at all. WCAI concludes that the FCC need not impose draconian requirements on ITFS licensees to promote MSS, which can operate whether or not the 2483.5-2500 MHz band is available.

Finally, in the event the FCC chooses to impose new restrictions on out-of-band ITFS emissions below 2500 MHz, WCAI suggests that costs incurred by ITFS licensees (and wireless cable operators utilizing A group ITFS facilities) be borne by MSS operators. WCAI urges that the FCC employ the same requirements for MSS operators that it imposes on proponents of forced ITFS modifications under the rules adopted in the Second Report and Order in General Docket No. 90.54 -- that all costs be paid for by the proponent of the modifications, including the furnishing of a bond or establishment of an escrow account to cover on-going expenses.

Position of ITFS Parties

As does WCAI, the ITFS Parties strongly urge that no modifications should be required of ITFS licensees to protect MSS operations on the 2483.5-2500 MHz band if no factual basis exists to expect interband interference, if the 2483.5-2500 MHz band is not necessary to the operation of MSS systems, or if its use by MSS is not feasible for other reasons.

Furthermore, many of the ITFS Parties are now using or contemplate using ITFS beam benders or signal boosters. The ITFS Parties believe that increases in the costs of these facilities will render them useless for their intended purpose and will result in the denial of service to areas that could otherwise receive ITFS service on a cost-effective basis. These facilities are crucial to the continued development of ITFS, and cannot be so compromised.

Finally, the ITFS Parties strongly urge the FCC to require MSS proponents to pay for any changes to existing ITFS transmitters, or increased costs of transmission facilities for new stations, as well as any increased operating costs, necessary to protect MSS transmissions in the 2483.5-2500 MHz band. The ITFS Parties are all non-profit organizations and institutions (in many cases taxpayer-supported entities), whose sole motivation in operating ITFS facilities is the provision of educational services to schools, public service agencies (such as police and fire departments), hospitals and, increasingly, the public at large. Despite the suggestions of MSS parties such as TRW, Inc., the ITFS Parties cannot be burdened with additional costs associated with protecting the implementation of MSS services.^{4/}

Conclusion

For the foregoing reasons, the ITFS Parties support the position in this proceeding of the Wireless Cable Association International, Inc.

Respectfully submitted,

**ARIZONA BOARD OF REGENTS FOR
BENEFIT OF THE UNIVERSITY OF
ARIZONA**

AUSTIN COMMUNITY COLLEGE

**BOARD OF TRUSTEES OF THE
UNIVERSITY OF CINCINNATI**

^{4/} In this respect, the ITFS Parties concur with the Comments of the Corporation for Public Broadcasting, at 5-6, the Comments of the Association of America's Public Television Stations, at 2 n. 2, and the Comments of the National Telephone Cooperative Association, at 2.

CALIFORNIA STATE UNIVERSITY

**GREATER DAYTON PUBLIC
TELEVISION, INC.**

KCTS TELEVISION

PUBLIC BROADCASTING SERVICE

**SOUTH CAROLINA EDUCATIONAL
TELEVISION COMMISSION**

**ST. LOUIS REGIONAL EDUCATIONAL
AND PUBLIC TELEVISION COMMISSION**

**STATE OF WISCONSIN - EDUCATIONAL
COMMUNICATIONS BOARD**

UNIVERSITY OF MAINE SYSTEM

**UNIVERSITY SYSTEM OF THE ANA G.
MENDEZ EDUCATIONAL FOUNDATION**

WITF, INC.

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